

WEB TECHNOLOGIES

React.JS – Stateful Components

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React.JS – Stateful Components Introduction



- So far, we have seen static or stateless Components. They don't undergo state changes.
- Components need to change based on
 - User actions (clicks, keyboard inputs, etc.)
 - Other triggers (responses received from server, timers, etc.)





• Let's consider this Component that shows the number of seconds the user has been on the page

122

seconds since you loaded the page





We consider two Components, CounterDisplay and Counter

```
ReactDOM.render(
    <CounterDisplay/>,
    document.querySelector("#container")
);
class CounterDisplay extends React.Component {
    render() {
         return (
              <div>
                  <Counter/>
                  <h2>seconds </h2>
                  <h2>since you loaded the page</h2>
              </div>
```





- We use the constructor method to initialize the counter.
- The Component also has the method *componentDidMount* that can be used to start the counter
- It also exposes the *setState* method to update the state (the counter)



We use these methods as follows

```
class Counter extends React.Component {
    constructor(props, context) {
         super(props, context);
         this.state = {
              seconds: 0
         };
    render() {
         return (
              <h1>{this.state.seconds}</h1>
         );
```



Add this code after the constructor:

```
componentDidMount() {
    setInterval(this.timerTick, 1000);
}
timerTick() {
    this.setState({
        seconds: this.state.seconds + 1
    });
}
```



• To bring in the stateful Component behaviour, that also ensures that state variable

```
seconds is never out of sync
this.setState((prevState) => {
    return {
        seconds: prevState.seconds + 1
      };
});
```

 To ensure that the this.state works well in the timerTick method, add the following line to call that function with the context of the Component

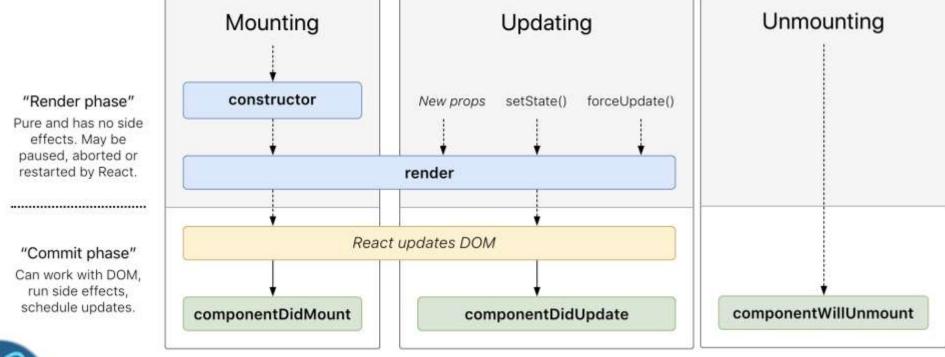
```
constructor(props, context) {
    ...
    this.timerTick = this.timerTick.bind(this);
}
```



React.JS – Stateful Components Component Life Cycle

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Components undergo these following life cycle states and their associated events







THANK YOU

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